

# A Formation of Conceptual Framework to Enhance Innovative Behaviors of Kuwait Public Sector Employees

Khalifah Almerri, Theresa C. F. Ho, Nomahaza Mahadi  
Azman Hashim International Business School, Universiti Teknologi Malaysia, Malaysia  
Corresponding Author's Email: khalifah86@outlook.com

## Abstract

Human capital and social capital have emerged as major concerns in the new global economy as significant resources for the countries. Additionally, intellectual capital is crucial for achieving economic success in the field of sustained competitive advantage. A useful business resource may also contribute to a company's success. According to a firm's use of distinctive resources will give it a competitive advantage, which is essential for commercial success. Along with good and practical business resources, creativity on the part of both employers and employees also plays a role in the growth and administration of businesses. In order to lay the foundation for the current survey, this study discusses two of the hypotheses that have been proposed by other studies addressing corporate resources. The research framework was developed using multiple theories such as self-determination theory, Resource Dependence Theory, and Resources-based View (RBV). This study presents a conceptual framework to examine how intellectual capital (human, relational, structural), enhances innovation in developing countries' education sector, furthermore study proposed that job autonomy and collaborative culture can moderate the relationship between intellectual capital towards innovation.

## Introduction

According to World Economic Forum (2018) the world economy is transforming into an economy that is based on knowledge, numerous changes in the work environment besides new demand directions have put a lot of pressure on organizations to transform into sources of innovation and talent. Globalization is the new characteristic of the knowledge-based economy that is reflected in the borderless economies with new multinational corporations. This situation has created trends that have a significant impact on management research and entail new methods for investigation. More recently, in today's economic environment, innovation has become a growth driver for firms and countries alike (The Global Innovation Index, 2018). This is also reflected by the increasing number of studies that investigate the factors that lead to the enhancement of innovation. For instance, Demirkan (2018) examined the impact of a firm's resources on innovation, Wadho and Chaudhry (2018) investigated the relationship between innovation and firm performance in Pakistan, while Chen, Zheng, Yang, and Bai (2016) in their study in China investigated the relationships of social capital with innovation.

Due to its multidisciplinary nature, innovation offers a multitude of perspectives, and yet, its valuation (Bontis et al., 1999) and relevance (Booker et al., 2008) involve many intricacies. Given the tough business competition in the borderless world, the role of intellectual capital and hence innovation as a powerful driver of economic growth has been generally acknowledged (Huang & Liu, 2005).

Most past studies on innovation tended to emphasize on the developed world, particularly in the west. Nevertheless, this research area is currently attracting worldwide interest, for example, research done in Germany (Kristandl & Bontis, 2007), Portugal (Cabrita & Bontis, 2008; Cabrita et al., 2007), Ireland (O'Regan et al., 2001, 2005), Egypt (Seleim et al., 2004, 2007), Mexico (Trevinyo-Rodriguez & Bontis, 2007), Australia (Nick Bontis & Girardi, 2000), Malaysia (Bontis et al., 2000), and others. Moreover, the Arab countries are also showing keen interest in the progress in innovation (Abdelbary & Benhin, 2018; Bizri, 2018). This research aims at answering the questions prescribed above by investigating the factors that affect innovation in the public sector of a developing country. The research framework based on self-determination theory, resource dependence theory, and resources based view (RBV). The study focus is on the ministry of education in Kuwait, the reason for that choice is due to critical role the education plays in supplying the skilled human capital in the digital era and unless the ministry itself as a public sector institution embrace innovation it won't be able to produce the desired outcome, additionally, the recent circumstances of the Covid-19 pandemic has even added to the dire need for innovative solutions for the educational process such as online learning and training which is vital for the survival and recovery of the country.

Researcher selected Kuwait's, Ministry of Education, by examining the role intellectual capital and innovation. In Global Competitiveness Report (2018), among the major obstacles faced by organizations in Kuwait are the lack of educated workforce and insufficient capacity to innovate, which represent the inadequacy of educated human capital. Consequently, these problems will affect the innovation of organizations. Besides, public sector in Kuwait specifically Ministry of Education is under enormous pressure to embrace technology as per United Nations Economic Commission (2017). This is because the ongoing transformation of global governance and economy to the digital age, education is one of the sectors that will act as the main pillar in such transformation to train, educate, and supply the human capital from instructors to students with innovative programs that alleviate educational outcomes (AlNuaimi & Khan, 2019).

### **Literature Review**

This ongoing research includes literature that are based on a variety of theories and frameworks. Researchers and academics who are eager to learn more in-depth information about business and economic areas outside of their own frameworks to embrace the creation and extension of new and current frameworks in this research area would find value in this study. The research's findings also help to provide understanding about human resource practices that specifically emphasize the connections between Kuwait's intellectual capital and innovation.

### **Underpinning Theories**

There are various studies suggesting theories regarding business resources, and this present study discusses three of the theories to provide the ground for present survey. The theories

are resource dependence theory (RDT), self-determination theory and resource based view (RBV). This section highlighting the theories' definition, uses and also some related studies.

### **Self-determination Theory**

People's volitional motivation is ascertained using the self-determination theory (SDT), which is based on the cognitive assessment theory (Deci & Ryan, 1985). The SDT examines whether people view their activities as controlled or autonomous (doing in accordance with choice, interest, pleasure, or values) (acting according to rewards, punishment, guilt, or obligation). Extrinsic motivation concentrates on actions that are impacted by variables outside of the person, such as rewards and threats of punishment, and is controllable (Nie et al., 2015). A motive, on the other hand, is the lack of intention to do any action. In their book, Hofstede and Minkov (2010) argued that fostering individualism and independence is a key component of creativity. Therefore, this study contends that the presence of an organizational culture that values personal autonomy will strengthen the beneficial effects of human, social, and structural capital as well as on innovation. As a result, this study explores how intrinsic motivation (autonomy) significantly affects the connections between intellectual capital and innovation.

### **Resource Dependence Theory (RDT)**

Central to the entire discipline of the Resource Dependence Theory (RDT) is the concept of the resource delivery, which gains much support from researchers in the studies of resource dependence (Boyd, 1990; Gales & Kesner, 1994; Hillman et al., 2000). Moreover, to link this theory with the firm performance, several attempts have been made to in the area of the organization behavior and research of the prominence relation of the resources and organizational performance (Becker & Gerhart, 1996; Nienhüser, 2008). It has been stated that the fundamental suggestion of the organizational survival, is the ability to acquire valuable resources from the external environment to the internal environment (Casciaro & Piskorski, 2005).

### **Resource Based View (RBV)**

The use of the Resource Based View (RBV) to describe how internal resources effect competitive advantage and firm performance has been stressed in the majority of human capital research over the past ten years (Armstrong & Shimizu, 2007; J. B. Barney, 2001; Wernerfelt, 1984; Wright et al., 1994). RBV was established by Penrose (1959) and Wernerfelt (1984) as a collection of resources and capabilities that when combined, develop competences (Rivard et al., 2006). Barney (1991) established and formulated this theory in order to address the topic of why some companies consistently outperform others, which has been raised frequently in the field of organisations (Barney & Arikan, 2001). Researchers attempted to compare the revenues of the organizations with the firm's plans in order to reach general managers in the businesses (Barney & Arikan, 2001; Hart, 1995). Wernerfelt (1984) also listed several assets that could have a long-term impact on the company, such as trademarks, internal technological know-how, skilled workers, trading partners, machinery, effective procedures, capital, etc.

## **Research Variables**

### **Human Capital**

According to Edvinsson and Malone (1997), human capital refers to the total investment value in employees' training and competence. For this study it refers to the educational background, training, experience, professional skills of employees of head of departments at the Ministry of Education in Kuwait (Le et al., 2020).

### **Relational Capital**

According to Roos et al (1997), relational capital refers to the entire knowledge entrenched in the relationships between an organization and outsiders including employees. For this study it is defined as the level of interaction, mutual trust, and personal friendships among employees at the Ministry of Education in Kuwait and its stakeholders (Le et al., 2020).

### **Structural Capital**

The use of systems, databases, and software to store information in a non-human form within a company is referred to as structural capital (Edvinsson & Malone, 1997). SC is an intangible asset that can be bought, sold, replicated, and distributed among organisation members, claims Zambon (2017). It refers to employees' apparent comprehension of power, responsibility, organisational culture, perspective, information system, and procedures within the Kuwaiti Ministry of Education for the purposes of this study (Le et al., 2020).

### **Innovation**

In this study innovation refers to the creativity that is derived from novel and useful ideas, while innovation results from fruitful execution of creative and continuously improving ideas by the Ministry of Education in Kuwait, specifically, new approaches and technological methods in education, frequently refining provisions, and inventing new services (Le et al., 2020a).

### **Autonomy**

In this study autonomy refers to the need to experience a sense of choice, willingness, control, and preference in the behavior of head of department at the Ministry of Education in Kuwait (Saragih, 2011).

### **Collaborative Culture**

Collaborative Culture refers to the social norms among employees within the Ministry of Education in Kuwait in terms of the view on individual employee, risk taking perception, the value of different opinions, and collaboration among different duties and departments (Le et al., 2020b).

## **Research Propositions**

In this section relationship between independent variables to dependent variables will be discussed. Intellectual capital has the capability to reinforce the extent of innovation in an organization (Wu et al., 2008). The progress or achievement of new product development is positively affected by intellectual capital (Chen et al., 2006). This study uses a variety of ideas to examine the key connections between intellectual capital (human, structural, and relational) and innovation. The moderating impact of autonomy and collaborative culture on

the relationships among human capital, structural capital, relational capital, and innovation is also examined in light of the knowledge gathered from the literature review.

***Proposition 1: Intellectual capital has the positive effect on employees' innovation in Kuwait public sector.***

The overall investment worth in employees' training and competency is referred to as human capital. It refers to the educational background, training, experience, and professional skills in this study. It has been demonstrated that an organization's capacity for innovation is significantly enhanced by the knowledge held by its human capital (Farouk et al., 2016; Von Krogh & Wallin, 2011). In a similar vein, Barney (1991); Becker (1993) noted that one of the essential elements of competitive advantage is the unique knowledge inherent in human capital.

***Proposition 2: Job Autonomy can positively moderate the relationship between Intellectual capital and innovation.***

Job autonomy is the requirement to feel free to choose, willing to control, and preferred in how top management behaves. A culture of job autonomy is essential in a changing environment, according to the personalist idea that workers should have a participatory role in the workplace, participating in responsibility and having possibilities for innovation and self-initiative. Employees' surroundings should be supported by a high level of autonomy in an atmosphere of rapid technological and organizational change in order to achieve higher performance (Mittelmark et al., 2017).

***Proposition 3: Collaborative Culture can positively moderate the relationship between Intellectual capital and innovation.***

Whenever circumstances get challenging, individuals in a collaborative culture will support one another even though they may not always get along. When most people are on the same page, there is a strong collaborative culture (Gruenert & Whitaker, 2015). Studies show that collaborative culture play a major role to predicts innovation (Le et al., 2020b), Collaborative culture guide the employees to the innovation and creativity by enabling the socialization processes that let the individuals understand the how tasks and activities should function in the organization (Z. Yang et al., 2018), notable studies shows that innovation associate with collaborative culture (G. Kumar et al., 2016) (Z. Yang et al., 2018) (Barczak et al., 2010). As a result, current study is going to examine moderating effects of collaborative culture on structural capital towards innovation

## **Methodology**

Current study proposed a conceptual framework (Figure 1) based on literature review. The complete group of persons that the researcher wants to study makes up the population of the study. Kuwait's Ministry of Education employees (public sector) serve as the study population in this investigation. Specifically focuses on the Managerial level staff at the Ministry of Education (head office) in Kuwait employees. The total number of heads of department is 243 (Ministry of Education Kuwait, 2020). Simple random sampling will be used in this study, in which each member of the population has a known and equal chance of being chosen as a subject. The researcher numbers each participant in the sampling frame before choosing sample units at random. As the study has quantitative nature The questionnaire will be the primary tool for data collection.

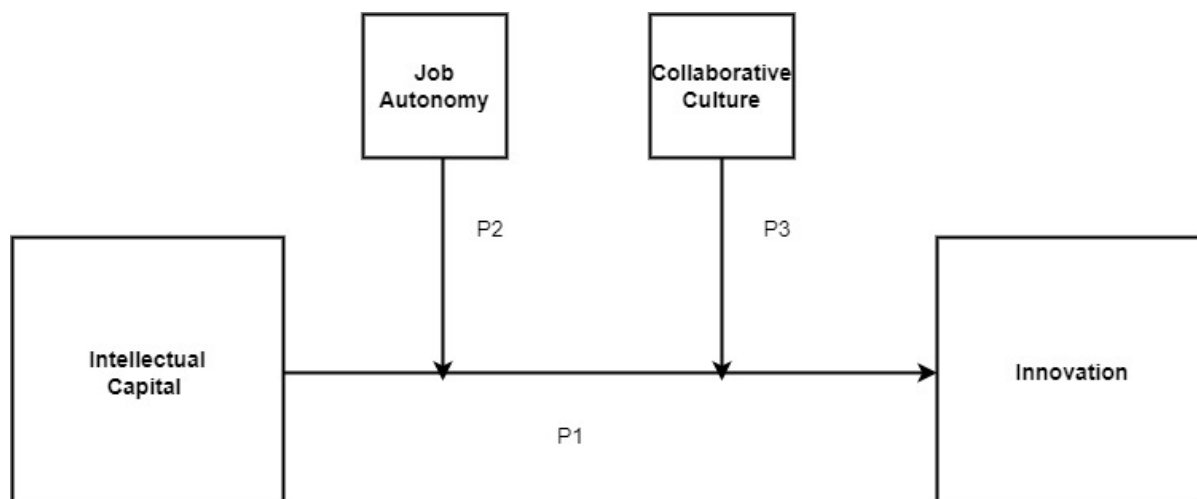


Figure 1 Conceptual Framework

### Measures

The study will adopt all the items for the questionnaire from multiple studies. Intellectual capital consist of three main constructs (human, structural, capital )Human capital measurement instrument drawn from C. H. Liu & Jiang (2020) which have been also used by other studies like (Yusliza et al., 2020) and (Mohd et al., 2019). Relational capital measurement instrument composed of three items that are drawn from C. H. Liu & Jiang (2020), likewise structural capital items also adapted from (Liu & Jiang, 2020). The instrument to measure Job Autonomy is adapted from Morgeson & Humphrey (2006). In the same way the instrument to measure collaborative culture were adopted from (Le et al., 2020b).

### Research Method Selection

Research paradigms adopt the ideology of researchers to the occurrence of natural or constructed phenomena for scientific or non-scientific studies (Bloomfield et al., 2019). As the research framework suggests, researchers prefer to follow distinct methods of information acquisition and analysis. A quantitative method is adopted when researchers dealing with a large population and numeric data, the quantitative methodology has long recognized method for confirmation and theory testing. Another method deals with non-numeric data, e.g., word data or sentence data for analysis, called qualitative research design mostly used for exploring a specific situation.

Multiple researchers suggested and tested both of the aforementioned research methods simultaneously to achieve their research goals and denoted the combined research design as a mixed-method research design (Fetters et al., 2013; Sekaran et al., 2016). The detailed comparisons of various research designs showed in Table 3.1.

Table 3.1  
*Research Designs*

Variable	Quantitative	Qualitative	Mixed-Method
Sample size	Large	Small	Mix: small and large
Data type	Numerical data	Textual raw data	Both type of data
Relationship with participants	No direct relationship.	Close -one-to-one relationship	Both type of relationship
Generalizability	Generalizable	Generalizability is not an objective	Generalizability is more robust than the other two methods
Results interpretation	Concise interpretation of results due to use of statistics	Many Interpretations	Interpretation is complicated because of the use of both methods
Overall aim	Theory, intervention creation and testing/ confirmation and theory generalization	Explanation and understanding of social phenomena, effect application testing.	Both Theory and effect application testing and generalization

### **Research Sample and Population**

A population includes the collection of individuals, events, or objects of interest which are the subjects of examination by the researcher (Sekaran & Bougie, 2013). According to Saunders et al (2009), the population of the research is the entire group of people that the researcher wishes to investigate. In this study, Kuwait's ministry of education staff members (public sector) are used as the study population. Specifically focuses on the Managerial level staff at the ministry of education (head office) in Kuwait employees. The total number of heads of department is 243 (Ministry of education Kuwait, 2020).

### **Sampling Technique and Sample Selection**

The sample frame is a list of the entire elements of the population that the researchers draw their sample from, and it is what distinguishes probability and nonprobability sampling (Mark Saunders et al., 2009). If the researcher can get a list of all population in the study the suitable technique will be probability, if not the nonprobability technique will be the only option. This study adapts the probability sampling because of the availability of the sampling frame (list of population) which allows the researcher to choose randomly from the population (every element in the population has the same chance to be selected). Therefore, this study will utilize simple random sampling where every element in the population has a known and equal chance of being selected as a subject. The researcher assigns each member of the sampling frame a number, then selects sample units by random method. The advantages of the simple random sampling that it only minimal advance knowledge of population needed; easy to analyze data and compute error. Hair, Hult, Ringle, and Sarstedt (2013) recommend that researchers can use programs such as G\*Power to determine the minimum sample size. This study found that the minimum sample size which recommends by the software G\*Power for this study is 80 subjects with 0.8 statistical power. According to G-Power the adequate sample size for this study is 175 subjects, which fit with most of the recommendation in the literature

regarding the sample size, which is neither too large nor too small sample sizes help research projects.

### **Discussion**

This current study project includes inquiries generated from numerous ideas and frameworks. This research will be useful to researchers and academics who want to expand their knowledge of business and economic disciplines outside their own frameworks in order to embrace the development and extension of new and current frameworks in this research area. Furthermore, the findings of this study contribute to the supply of knowledge of human resource practices by emphasizing in depth the relationships between intellectual capital and innovation in Kuwait. This study's findings are expected to promote and support the development of future policy, not only at the organizational level, but also at the national level. Establishing measures to foster creativity and an emphasis on intellectual capital characteristics may improve professional practice, personal growth, and the quality of working life, as well as government services.

### **Limitations and Future Research**

Among many limitations of the study most vital limitation is the study is only useful for Kuwait Ministry of Education. The literature review of which the study was based is not too thick and limited to small pool therefore, more systematic literature review is needed to generalize the results. This research drawn a conceptual framework which still need to be empirically tested. The future researchers should test the proposed framework in multiple settings to gain more fruitful results.

### **Conclusion**

The World Economic Forum (2018) asserts that the global economy is evolving into a knowledge-based economy. Numerous changes to the workplace together with new demand trends have increased pressure on firms to become sources of innovation and talent. The knowledge-based economy's new characteristic, globalisation, is expressed in the borderless economies and the emergence of new international firms. This circumstance has sparked trends that have an important bearing on management research and call for fresh approaches to inquiry. More recently, innovation has evolved into a development engine for businesses and nations alike in the current economic climate (The Global Innovation Index, 2018). Despite having the potential to provide a competitive edge, many firms are unaware of the value and nature of intellectual capital. Scandia was one of the first businesses to identify the value of intellectual capital as an intangible asset. This field of study has recently grown thanks to the contributions of numerous dedicated academic publications and scholars.

This research tried to answer the questions prescribed above by investigating the factors that affect innovation in the public sector of Kuwait namely, Ministry of Education, by examining the role intellectual capital, job autonomy and collaborative culture.



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